Big Bang Activity Quiz
(15 points)

Name _____

1. What nuclear particles were first present before any elements formed?

_____, _____

2. Why could these particles not join to become new things at first—why did you need to move apart? _____
3. What was the first thing formed from two particles? _____
4. Give one way the nucleus you named in #3 formed: _____

_____

5. Why was a positron (ping pong ball) sometimes thrown out of a group that formed (What change took place in the particle that emitted it?)

   _____

6. At what temperature did the first particles begin to join? _____
7. At about what temperature did most of the new particles form? _____
8. Name three other nuclei that formed early in the universe (not yet named)

_____, _____, _____

9. In how much time did all of these things form? _____
10. When we did the activity a second time, did we get the same result for the same people? _____
11. What particle were you in the model and what changes did you go through?

_____

_____

_____

12. What was the Big Bang and what was the early universe like?

_____

_____

_____

Bonus: Describe by <u>giving names and numbers of particles</u> one way to form a heavier particle than deuterium.